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OM protein - protein search, using SW model

Run on: October 17, 2005, 12:13:25 ; Search time 115.62 Seconds
(without alignments)
498.419 Million cell updates/sec

Title: US-10-601-105-2

Perfect score: 769
Sequence: 1 MCCPRMFPALYLVLSVSR.....KKRRKRVTTNKCLEQVSL 149

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :
1: Geneseq_16Dec04:*
2: Geneseq_1980s:*
3: Geneseq_1990s:*
4: Geneseq_2000s:*
5: Geneseq_2002s:*
6: Geneseq_2003as:*
7: Geneseq_2003bs:*
8: Geneseq_2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	769	100.0	149	7 ADD05351	ADD05351 Human int
2	769	100.0	149	8 ADD050318	ADD050318 Human IL-
3	763	99.2	149	3 AAY88414	AAY88414 Human int
4	739	96.1	164	5 ABP64806	ABP64806 Human pro
5	707	91.9	159	3 AAY97365	AAY97365 Human thy
6	707	91.9	159	3 AAY88415	AAY88415 Supplemen
7	707	91.9	159	5 ABP72263	ABP72263 Primatoc (
8	707	91.9	159	6 AAE37155	AAE37155 Human thy
9	707	91.9	159	6 ADD05353	ADD05353 Human int
10	707	91.9	159	7 ADF29182	ADF29182 Human thy
11	707	91.9	159	8 ADG43811	ADG43811 Human thy
12	707	91.9	159	8 ADG43811	ADG43811 Human thy
13	696.5	90.6	160	6 AAE37163	AAE37163 Human thy
14	689	89.6	159	6 AAE37162	AAE37162 Human thy
15	677	88.0	159	6 AAE37158	AAE37158 Human thy
16	675	87.8	155	6 AAE37159	AAE37159 Human thy
17	670.5	87.2	154	6 AAE37161	AAE37161 Human thy
18	669.5	87.1	154	6 AAE37160	AAE37160 Human thy
19	652	84.8	149	3 AAY93962	AAY93962 Antino aci
20	652	84.8	149	5 AAE26440	AAE26440 Human TAN
21	574	74.6	131	7 ADF29186	ADF29186 Human thy
22	214	27.8	140	6 AAE37154	AAE37154 Mouse thy
23	183	23.8	36	4 ABB41950	ABB41950 Peptide #
24	183	23.8	36	4 AAM35752	AAM35752 Peptide #
25	183	23.8	36	4 ABB25603	ABB25603 Protein #

26	183	23.8	36	4 AAM75641	AAM75641 Human bon
27	183	23.8	36	4 AAM62827	AAM62827 Human bra
28	183	23.8	36	4 ABG57383	ABG57383 Human liv
29	183	23.8	36	5 ABG45148	ABG45148 Human pep
30	125.5	16.3	123	3 AAY93964	AAY93964 Antino aci
31	125.5	16.3	123	5 AAE26441	AAE26441 Mouse TAN
32	83	10.8	828	3 AAG36819	AAG36819 Arabidops
33	83	10.8	907	3 AAG36818	AAG36818 Arabidops
34	83	10.8	912	3 AAG36817	AAG36817 Arabidops
35	81.5	10.6	674	6 ADA35168	ADA35168 Actinocoba
36	77.5	10.1	310	4 AAB92923	AAB92923 Human pro
37	77.5	10.1	1038	4 AAB94063	AAB94063 Human pro
38	77.5	10.1	1544	2 AAY41109	AAY41109 Human can
39	77.5	10.1	1544	6 ABR47563	ABR47563 Breast ca
40	77.5	10.1	1544	8 ADR99132	ADR99132 Putative
41	77.5	10.1	1681	8 ADQ19097	ADQ19097 Human sof
42	76.5	9.9	367	8 ADK16583	ADK16583 Nanoarcha
43	76	9.9	447	8 ADS21960	ADS21960 Bacteri
44	75.5	9.8	284	3 AAG27922	AAG27922 Arabidops
45	75.5	9.8	316	3 AAG27921	AAG27921 Arabidops

ALIGNMENTS

RESULT 1	ADD05351	standard; protein; 149 AA.
ID	ADD05351	
XX	ADD05351	
AC	ADD05351	
XX	01-JAN-2004	(first entry)
XX		
DE	Human interleukin-B50 (IL-B50) polypeptide #1.	
XX		
KW	Human; interleukin-B50; IL-B50; immune disorder; T cell immunodeficiency;	
KW	chronic inflammation; tissue rejection; cardiovascular condition;	
KW	neurophysiological condition; antiinflammatory; immunosuppressive;	
KW	immunostimulant; cardiac; neuroprotective.	
XX		
OS	Homo sapiens.	
XX		
PH	Key	Location/Qualifiers
FT	Misc-difference	94 /note= "Encoded by CGN"
XX		
XX	US2003099947-A1.	
XX		
PD	29-MAY-2003.	
XX		
XX	25-SEP-2001; 2001US-00963347.	
XX		
PR	23-SEP-1998; 99US-0101318P.	
PR	27-APR-1999; 99US-0131298P.	
PR	20-SEP-1999; 99US-00399492.	
XX		
PA	(BAZA/) BAZAN J F.	
PA	(MALE/) DE WAAL MALEFYT R.	
PA	(LIUY/) LIU Y.	
PA	(SOMU/) SOUNELIS V.	
XX		
PI	Bazan JF, De Waal Malefyt R, Liu Y, Sounelis V,	
XX		
DR	WPI; 2003-777307/73.	
DR	N-PSDB; ADD05350.	
XX		
PT	Novel isolated or recombinant polynucleotide encoding antigenic human	
PT	interleukin-B50 sequence which is useful for treating T cell	
PT	immunodeficiencies, chronic inflammation or tissue rejection, or	
PT	cardiovascular conditions.	
XX		
PS	Claim 16; SEQ ID NO 2; 54pp; English.	

CC The invention relates to the human interleukin-B50 (IL-B50) polypeptide
 CC and the polynucleotide encoding it. The polypeptide is useful for making
 CC an antigenic polypeptide. The antigenic polypeptide is useful for binding
 CC an antigen in a biological sample, where it forms a binding compound.
 CC antigen complex. The polypeptide is also useful in forensic sciences to
 CC distinguish rodent from human, or as a marker for distinguishing between
 CC different cells exhibiting differential expression or modification
 CC patterns. The sequences are useful for treating abnormal medical
 CC conditions such as immune disorders e.g., T cell immunodeficiencies,
 CC chronic inflammation or tissue rejection, or cardiovascular or
 CC neurophysiological conditions. This sequence represents a human IL-B50
 CC polypeptide of the invention.
 XX
 SQ Sequence 149 AA;
 Query Match 100.0%; Score 769; DB 7; Length 149;
 Best Local Similarity 100.0%; Pred. No. 2.1e-80;
 Matches 149; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MGCPRMPPALLVLSVSRKIFILQVLVLTDFDNCDFEKIKAAVSTISKDLITTM 60
 DB 1 MGCPRMPPALLVLSVSRKIFILQVLVLTDFDNCDFEKIKAAVSTISKDLITTM 60
 QY 61 SGTGSTFNNNTVSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMTKKALAIWCPGYSE 120
 DB 61 SGTGSTFNNNTVSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMTKKALAIWCPGYSE 120
 QY 121 TQINATQAMKKRRKRKVTNNKCLEQVSOL 149
 DB 121 TQINATQAMKKRRKRKVTNNKCLEQVSOL 149
 RESULT 2
 ID ADO50318 standard; protein; 149 AA.
 XX ADO50318;
 AC ADO50318;
 XX
 DT 29-JUL-2004 (first entry)
 XX
 DE Human IL-B50 protein #1.
 XX
 KW Cytokine; Interleukin-B50; IL-B50; differentiation; haematopoietic cell;
 KW immune disorder; T cell immune deficiency; chronic inflammation;
 KW tissue rejection; cardiovascular; neurophysiological; antigen; immunogen;
 KW human.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..33
 FT Protein /label= Signal_peptide
 FT Protein 94..149
 FT Misc-difference 94
 FT /note= "Encoded by CGN"
 FT
 PN US2004091970-A1.
 XX
 PD 13-MAY-2004.
 XX
 PF 20-JUN-2003; 2003US-00601105.
 XX
 XX 21-SEP-1998; 98US-0101318P.
 PR 27-APR-1999; 99US-0131298P.
 PR 20-SEP-1999; 99US-00399492.
 PR 25-SEP-2001; 2001US-00963347.
 XX
 PA (SCHE) SCHERING CORP.
 PI Bazan JF, De Waal Malefyt R, Liu Y, Soumelis V;
 XX MPI, 2004-374953/35.

DR N-PsDB; ADO50317.
 XX
 XX Novel isolated or recombinant polynucleotide such as cytokine e.g., IL-
 PT B50 useful for producing an antigenic polypeptide, for treating T cell
 PT immune deficiencies, chronic inflammation, tissue rejection or
 PT cardiovascular conditions.
 XX
 PS Claim 16; SEQ ID NO 2; 55pp; English.
 XX
 CC The invention relates to polynucleotide encoding cytokine interleukin-B50
 CC (IL-B50). The polynucleotide and polypeptide of the invention are useful
 CC for regulating activation, development, differentiation and function of
 CC various cell types, including haematopoietic cells, for treating abnormal
 CC medical conditions e.g., immune disorders such as T cell immune
 CC deficiencies, chronic inflammation, tissue rejection, cardiovascular or
 CC neurophysiological conditions. The polypeptide is useful as antigen e.g.,
 CC immunogen, for raising antibodies to various epitopes on the protein,
 CC both linear and conformational epitopes. The present sequence is human IL-
 CC B50.
 XX
 SQ Sequence 149 AA;
 Query Match 100.0%; Score 769; DB 8; Length 149;
 Best Local Similarity 100.0%; Pred. No. 2.1e-80;
 Matches 149; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MGCPRMPPALLVLSVSRKIFILQVLVLTDFDNCDFEKIKAAVSTISKDLITTM 60
 DB 1 MGCPRMPPALLVLSVSRKIFILQVLVLTDFDNCDFEKIKAAVSTISKDLITTM 60
 QY 61 SGTGSTFNNNTVSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMTKKALAIWCPGYSE 120
 DB 61 SGTGSTFNNNTVSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMTKKALAIWCPGYSE 120
 QY 121 TQINATQAMKKRRKRKVTNNKCLEQVSOL 149
 DB 121 TQINATQAMKKRRKRKVTNNKCLEQVSOL 149
 RESULT 3
 ID AAY88414 standard; protein; 149 AA.
 XX AAY88414;
 AC AAY88414;
 XX
 DT 31-JUL-2000 (first entry)
 XX
 DE Human interleukin-B50 amino acid sequence.
 XX
 KW Human; interleukin-B50; IL-B50; cytokine; haematopoietic cell;
 KW inflammation; autoimmune disorder; forensic science.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..33
 FT Protein /label= Signal_peptide
 FT Protein 34..149
 FT Protein /label= IL-B50
 FT Misc-difference 94
 FT /label= unknown
 FT /note= "Encoded by CGN"
 FT
 PN WO200017362-A1.
 XX
 PD 30-MAR-2000.
 XX
 XX 20-SEP-1999; 99WO-US020871.
 XX
 XX 21-SEP-1998; 98US-00157749.
 PR 27-APR-1999; 99US-0131298P.
 XX
 PA (SCHE) SCHERING CORP.

XX Bazan JF;
PI WPI; 2000-283587/24.
XX DR N-PSDB; AAA15633.
XX
XX New human interleukin (IL)-B50 nucleic acid, useful in forensic science
PT and for the production of IL-B50 which plays a role in the regulation or
PT development of hematopoietic cells.
PS Claim 18; Page 10; 79pp; English.
XX
XX This sequence represents a human interleukin-B50 (IL-B50) amino acid
CC sequence. IL-B50 is a short chain cytokine and has significant structural
CC and sequence similarity to IL-7. It is likely that IL-B50 has either a
CC stimulatory or inhibitory effect on hematopoietic cells. The present
CC sequence relates IL-B50 nucleotide and amino acid sequences, an
CC expression vector comprising the IL-B50 encoding nucleotide sequence,
CC host cells containing the expression vector, and a method for the
CC production of the antigenic polypeptide through the expression of the
CC nucleotide sequence. Nucleotide sequences encoding IL-B50 may be useful
CC in forensic science. IL-B50 plays a role in the regulation or development
CC of hematopoietic cells, e.g. lymphoid cells, which affect immunological
CC responses, e.g. inflammation and/or autoimmune disorders. Alternatively,
CC it may affect vascular physiology or development, or neuronal effects. IL
CC -B50, its fragments and anti-IL-B50 antibodies, along with compounds
CC identified as having binding affinity to IL-B50 should be useful as
CC reagents in the treatment of conditions associated with abnormal
CC physiology or development including inflammatory conditions. They may
CC also be useful in *in vitro* tests for the presence or absence of
CC interacting components, which may correlate with the success of
CC particular treatment strategies
CC
SQ Sequence 149 AA;
Query Match 99.2%; Score 763; DB 3; Length 149;
Best Local Similarity 99.3%; Pred. No. 1e-79;
Matches 148; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MGCPRMPPALVLSVSFRKIFILQVGLVLTDFDNCDFEIKAKAYSTISKDLITVM 60
DB 1 MGCPRMPPALVLSVSFRKIFILQVGLVLTDFDNCDFEIKAKAYSTISKDLITVM 60
QY 61 SGTGSTFNNNTVSCSNRPCHLTETISLTENPNRVRVSLAKEMFAMTKKALAIWCPGYSE 120
DB 61 SGTGSTFNNNTVSCSNRPCHLTETISLTENPNRVRVSLAKEMFAMTKKALAIWCPGYSE 120
QY 121 TOINATQAMKKRKRKRVTTNKKCLEQVSOL 149
DB 121 TOINATQAMKKRKRKRVTTNKKCLEQVSOL 149
RESULT 4
ID ABP64806 standard; protein; 164 AA.
XX
XX ABP64806;
XX
DT 25-FEB-2003 (first entry)
XX
XX Human protein SEQ ID 466.
DE
XX Human; expressed sequence tag; EST; hematopoietic disorder;
KM central nervous system disease; viral infection;
KM peripheral nervous system disease; non-healing wound; infectious disease;
KM immune deficiency; immune disorder; bacterial infection; allergy; cancer;
KM fungal infection; autoimmune disorder; coagulation disorder; noctropic;
KM anti-allergic; anti-inflammatory; immunosuppressive; neuroprotective;
KM cytotoxic; haemostatic; virucide; antibacterial; fungicide;
KM immunostimulant; cerebroprotective.
XX
XX Homo sapiens.
XX

PN WO200259260-A2.
XX
XX 01-AUG-2002.
PD
XX 16-NOV-2001; 2001WO-US042950.
PF
XX 17-NOV-2000; 2000US-00714936.
PR
XX (HYSE-) HYSBQ INC.
PA
XX Tang, XT, Goodrich RW, Liu C, Zhou P, Asundi V, Zhang J, Zhao QA;
PI Ren F, Xue AJ, Yang Y, Wehrman T, Drmanac RT;
XX WPI; 2002-590824/63.
DR N-PSDB; ABQ9392.
XX
XX New isolated polynucleotide, useful in research, diagnostic or
PT therapeutic methods, e.g. preventing or treating disorders involving
PT aberrant protein expression or biological activity.
PS Claim 20; SEQ ID NO 466; 394pp; English.
XX
XX The present invention relates to novel human coding sequences (ABQ9268-
CC ABQ93608) and proteins (ABP64682-ABP65022). The sequences are useful in
CC therapeutic, diagnostic and research methods. The polynucleotides may be
CC used in the field of molecular biology as hybridisation probes, primers
CC for PCR, for chromosome and gene mapping, for the recombinant production
CC of protein, or in generation of anti-sense DNA or RNA. The
CC polynucleotides are useful in diagnostics as expressed sequence tags
CC (ESTs) for identifying expressed genes or for physical mapping of the
CC human genome. The proteins may be used as molecular weight markers, or as
CC nutritional sources or supplements. The proteins may be used to maintain
CC and expand cell population in a totipotent or pluripotent state
CC useful for re-engineering damaged or diseased tissues, transplantation,
CC manufacture of bio-pharmaceuticals or the development of bio-sensors. The
CC polynucleotides and proteins are useful for preventing, treating or
CC ameliorating disorders involving aberrant protein expression or
CC biological activity, e.g. hematopoietic disorders, central/peripheral
CC nervous system diseases, mechanical and traumatic disorders, non-healing
CC wounds, immune deficiencies and disorders, infectious diseases caused by
CC viral, bacterial or fungal infection, autoimmune disorders, allergic
CC reactions and conditions, coagulation disorders, or cancer. The
CC polynucleotide sequences of the invention were assembled from ESTs
CC isolated mainly by sequencing by hybridisation, and in some cases
CC sequences obtained from one or more public databases. Note: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format directly from WIPD at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 164 AA;
Query Match 96.1%; Score 739; DB 5; Length 164;
Best Local Similarity 96.6%; Pred. No. 6.9e-77;
Matches 144; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
QY 1 MGCPRMPPALVLSVSFRKIFILQVGLVLTDFDNCDFEIKAKAYSTISKDLITVM 60
DB 1 MGCPRMPPALVLSVSFRKIFILQVGLVLTDFDNCDFEIKAKAYSTISKDLITVM 60
QY 61 SGTGSTFNNNTVSCSNRPCHLTETISLTENPNRVRVSLAKEMFAMTKKALAIWCPGYSE 120
DB 61 SGTGSTFNNNTVSCSNRPCHLTETISLTENPNRVRVSLAKEMFAMTKKALAIWCPGYSE 120
QY 121 TOINATQAMKKRKRKRVTTNKKCLEQVSOL 149
DB 121 TOINATQAMKKRKRKRVTTNKKCLEQVSOL 149
RESULT 5
ID AAY97365 standard; protein; 159 AA.
XX
XX AAY97365;
AC

XX 05-SEP-2000 (first entry)
 DT Human thymic stromal lymphopoietin (TSLP).
 XX
 XX Human thymic stromal lymphopoietin; TSLP; B cell maturation;
 KW immune regulation; cell proliferation; cell differentiation; cell death;
 KW cell migration; cell-to-cell interaction; inflammatory response;
 KW chromosome 5q21-22; Gardner syndrome; adenomatous polyposis coli;
 KW hereditary desmoid disease; Turcot syndrome; colorectal cancer.
 XX
 OS Homo sapiens.
 XX WO200029581-A1.
 XX
 XX 25-MAY-2000.
 XX
 XX 12-NOV-1999; 99WO-US027069.
 XX
 XX 13-NOV-1998; 98US-0108452P.
 XX
 XX (IMMUNEX CORP.
 PA Sims J, Lyman S, McKenna H, Armstrong A;
 PI WPI; 2000-387794/33.
 XX N-PSDB; AAA30331.
 DR
 XX New human thymic stromal lymphopoietin (TSLP) polypeptide useful for
 PT stimulating lymphocyte development and proliferation.
 PT
 XX Claim 11; Fig 2; 78pp; English.
 PS
 XX The present sequence is the protein sequence of human thymic stromal
 CC lymphopoietin (TSLP). It was isolated by searching an EST library for
 CC sequences similar to the murine TSLP sequence. The protein is involved in
 CC the growth and differentiation of B and T cells. It can be used to study
 CC processes such as immune regulation, cell proliferation, cell death, cell
 CC migration, cell-to-cell interaction and inflammatory responses. The
 CC nucleic acid can be used to identify human chromosome 5, to map genes
 CC along this chromosome, to identify genes on this chromosome which are
 CC associated with diseases, including Gardner syndrome, adenomatous
 CC polyposis coli, hereditary desmoid disease, Turcot syndrome and
 CC colorectal cancer, and to inhibit or induce B and T cell proliferation
 CC
 CC Sequence 159 AA;
 SQ
 Query Match 91.9%; Score 707; DB 3; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 QY 6 MPPFALLVYLSVFRKIFILQVGLVLYDFNCPDFEKIKAAVLTSTISKDLITYMSGTS 65
 DB 1 MPPFALLVYLSVFRKIFILQVGLVLYDFNCPDFEKIKAAVLTSTISKDLITYMSGTS 60
 QY 66 TEFNNTVSCSNRPHCTEIQSLTFENPNRVRSLAKEMFAMKTKAALAIWCPGSETOINA 125
 DB 61 TEFNNTVSCSNRPHCTEIQSLTFENPNRVRSLAKEMFAMKTKAALAIWCPGSETOINA 120
 QY 126 TOAMKRRKRRKVTNNKCLEQVSOL 149
 DB 121 TOAMKRRKRRKVTNNKCLEQVSOL 144
 RESULT 6
 ID AAY88415 standard; protein; 159 AA.
 AC AAY88415;
 XX
 XX 31-JUL-2000 (first entry)
 DT Supplemental human interleukin-B50 amino acid sequence.
 DE

XX Human; interleukin-B50; IL-B50; cytokine; haematopoietic cell;
 KW inflammation; autoimmune disorder; forensic science.
 XX
 XX Homo sapiens.
 OS
 XX Key Location/Qualifiers
 FT Peptide 1..28
 FT Protein /label= Signal_peptide
 FT 29..159
 FT /label= IL-B50
 XX
 XX WO200017362-A1.
 XX
 XX 30-MAR-2000.
 XX
 XX 20-SEP-1999; 99WO-US020871.
 XX
 XX 21-SEP-1998; 98US-00157749.
 XX
 XX 27-APR-1999; 99US-0131298P.
 XX
 XX (SCHE) SCHERING CORP.
 PA Bazan JF;
 PI WPI; 2000-283587/24.
 XX N-PSDB; AAA15634.
 DR
 XX New human interleukin (IL)-B50 nucleic acid, useful in forensic science
 PT and for the production of IL-B50 which plays a role in the regulation or
 PT development of hematopoietic cells.
 PT
 XX Claim 18; Page 11; 79pp; English.
 PS
 XX This sequence represents a human interleukin-B50 (IL-B50) amino acid
 CC sequence. IL-B50 is a short chain cytokine and has significant structural
 CC and sequence similarity to IL-7. It is likely that IL-B50 has either a
 CC stimulatory or inhibitory effect on haematopoietic cells. The present
 CC sequence relates IL-B50 nucleotide and amino acid sequences, an
 CC expression vector comprising the IL-B50 encoding nucleotide sequence,
 CC host cells containing the expression vector, and a method for the
 CC production of the antigenic polypeptide through the expression of the
 CC nucleotide sequence. Nucleotide sequences encoding IL-B50 may be useful
 CC in forensic science. IL-B50 plays a role in the regulation or development
 CC of haematopoietic cells, e.g. lymphoid cells, which affect immunological
 CC responses, e.g. inflammation and/or autoimmune disorders. Alternatively,
 CC it may affect vascular physiology or development, or neuronal effects. IL
 CC B50, its fragments and anti-IL-B50 antibodies, along with compounds
 CC identified as having binding affinity to IL-B50 should be useful as
 CC reagents in the treatment of conditions associated with abnormal
 CC physiology or development including inflammatory conditions. They may
 CC also be useful in in vitro tests for the presence or absence of
 CC interacting components, which may correlate with the success of
 CC particular treatment strategies
 CC
 CC Sequence 159 AA;
 SQ
 Query Match 91.9%; Score 707; DB 3; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 QY 6 MPPFALLVYLSVFRKIFILQVGLVLYDFNCPDFEKIKAAVLTSTISKDLITYMSGTS 65
 DB 1 MPPFALLVYLSVFRKIFILQVGLVLYDFNCPDFEKIKAAVLTSTISKDLITYMSGTS 60
 QY 66 TEFNNTVSCSNRPHCTEIQSLTFENPNRVRSLAKEMFAMKTKAALAIWCPGSETOINA 125
 DB 61 TEFNNTVSCSNRPHCTEIQSLTFENPNRVRSLAKEMFAMKTKAALAIWCPGSETOINA 120
 QY 126 TOAMKRRKRRKVTNNKCLEQVSOL 149
 DB 121 TOAMKRRKRRKVTNNKCLEQVSOL 144

RESULT 7
 ABP72263
 ID ABP72263 standard; protein; 159 AA.
 XX
 AC ABP72263;
 XX
 DT 28-APR-2003 (first entry)
 XX
 DE Primate (surmised human) cytokine IL-B50.
 XX
 KW Primate; human; Rdelta2; IL-7Ra1pha; cytokine; IL-B50; receptor;
 KW haematopoietic; dendritic cell; cytosolic; immunosuppressive;
 KW antiallergic.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..28 /label= Signal_peptide
 FT Protein 29..159 /label= Mature_protein
 XX
 PN MO200268646-A2.
 XX
 PD 06-SEP-2002.
 XX
 PF 09-NOV-2001; 2001WO-US050351.
 XX
 PR 10-NOV-2000; 2000US-0247218P.
 XX
 PR 14-JUN-2001; 2001US-0298268P.
 XX
 PA (SCHE) SCHERING CORP.
 XX
 PI Reche-Gallardo PA, De Maal Malefyt R, Bazan JF, Kastelein RA;
 PI Liu Y;
 XX
 DR WPI; 2002-706997/76.
 DR N-PSDB; AB258385.
 XX
 PT Producing a ligand:receptor complex, useful for affecting mammalian
 PT physiology, including hematopoietic cell proliferation or immune system
 PT function, comprises contacting IL-B50 with IL-7Ra1pha or Rdelta2 subunit
 PT to form a complex.
 XX
 PS Disclosure; Fig 3A; 118pp; English.
 XX
 CC The present sequence is the protein sequence of primate (surmised human)
 CC IL-B50. The invention is based on the discovery that human IL-B50 is a
 CC novel haematopoietic cytokine and that IL-B50 signalling makes use of the
 CC combination of human IL-7Ra1pha (see ABP72261) and human Rdelta2 (see
 CC ABP72262), which together form a novel haematopoietic cytokine receptor.
 CC Both receptor subunits are present on macrophages and dendritic cells,
 CC indicating functional effects of the cytokine on those cell types, and
 CC mediating functions provided by those cell types. The invention provides
 CC methods of producing the ligand:receptor complex, of modulating the
 CC physiology or development of an IL-7Ra1pha or Rdelta2 expressing cell
 CC using an agonist or antagonist of IL-B50, of modulating a signal to a
 CC cell mediated by IL-B50, of selectively labelling a population of cells,
 CC and of testing a compound for ability to affect receptor-ligand
 CC interaction. Human IL-B50 improves dendritic cell survival in culture, up
 CC -regulates the expression of costimulatory molecules and adhesion
 CC molecules, induces dendritic cells to produce chemokines RANTES, GM-CSF and
 CC MDC, and strongly promotes the capacity of dendritic cells to induce
 CC naive T-cells to proliferate and to produce interleukin-4, interleukin-13
 CC and tumour necrosis factor-alpha. IL-B50 may be used to enhance dendritic
 CC cell function in treating cancers and infectious diseases, while IL-B50
 CC antagonists may be used to block the function of dendritic cells in
 CC treating autoimmune diseases, allergic diseases, graft-versus-host
 CC disease and transplant rejection. The elucidation of IL-B50 receptor
 CC subunits allows for the identification of IL-B50 agonists and antagonists
 CC of use in these therapies. The dendritic cell expression of IL-7Ra1pha
 CC and Rdelta2 indicates a role for IL-B50 in maturation of cells or

CC pathways important in antigen presentation, suggesting use of IL-B50 for
 CC expansion, e.g. ex vivo, of antigen-presenting cells
 CC
 CC
 CC Sequence 159 AA;
 XX
 CC Query Match 91.9%; Score 707; DB 5; Length 159;
 CC Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 CC Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 XX
 QY 6 MFPPALLVLSVSPKRIPILOVLVLTDFNCPDEPKKAAVLTSTISKDLITNMGTS 65
 DB 1 MFPPALLVLSVSPKRIPILOVLVLTDFNCPDEPKKAAVLTSTISKDLITNMGTS 60
 QY 66 TEPNNVTGCSNRPICLTETIOSLTENPNRVRSLAKEMPAKTKAALAIWCPGSEFQINA 125
 DB 61 TEPNNVTGCSNRPICLTETIOSLTENPNRVRSLAKEMPAKTKAALAIWCPGSEFQINA 120
 QY 126 TOAMKKRRKRKYTTNKKCLEQVSQ 149
 DB 121 TOAMKKRRKRKYTTNKKCLEQVSQ 144
 XX
 RESULT 8
 AAE37155
 ID AAE37155 standard; protein; 159 AA.
 XX
 AC AAE37155;
 XX
 DT 07-AUG-2003 (first entry)
 XX
 DE Human thymic stromal lymphopoietin (TSLP) protein.
 XX
 KW Thymic stromal lymphopoietin; TSLP; lymphopoiesis; STARS; antibacterial;
 KW furin-resistant protein; lymphocyte; vaccine; AIDS; autoimmune disease;
 KW transplant rejection; infection; immunosuppressive; immunostimulant;
 KW virucide; human.
 XX
 OS Homo sapiens.
 XX
 PN WO2003032898-A2.
 XX
 PD 24-APR-2003.
 XX
 PF 23-JUL-2002; 2002WO-US023475.
 XX
 PR 23-JUL-2001; 2001US-0307345P.
 XX
 PA (IMMV) IMMUNEX CORP.
 XX
 PI Lyman SD, Van Ness KP, Paxton RJ;
 XX
 DR WPI; 2003-393470/37.
 DR N-PSDB; AAD56172.
 XX
 PT New modified human thymic stromal lymphopoietin (TSLP) protein and
 PT polynucleotide, useful for stimulating lymphocyte proliferation of
 PT polynucleotides, particularly as a vaccine for treating e.g. AIDS or
 PT autoimmune diseases.
 XX
 PS Claim 10; Page 40-41; 52pp; English.
 XX
 CC The invention relates to modified human thymic stromal lymphopoietin
 CC (TSLP) protein and polynucleotide sequences. TSLP protein is useful for
 CC stimulating lymphocyte proliferation of lymphopoietic, or inducing STARS.
 CC TSLP DNA is useful for producing a furin-resistant polypeptide having at
 CC least one functional human TSLP activity. The invention is useful in the
 CC manufacture of a medicament for stimulating lymphocyte proliferation, for
 CC promoting lymphopoiesis, or for inducing phosphorylation of STARS. It is
 CC also useful as a vaccine for treating AIDS, autoimmune diseases (e.g.
 CC transplant rejection), or bacterial or viral infections. The present
 CC sequence is human TSLP protein
 XX
 CC Sequence 159 AA;

Query Match 91.9%; Score 707; DB 6; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 6 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 65
 DB 1 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 60

QY 66 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 125
 DB 61 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 120

QY 126 TQAMKRRRRKRVTTNKCLEQVSOL 149
 DB 121 TQAMKRRRRKRVTTNKCLEQVSOL 144

RESULT 9
 ADD05353
 ID ADD05353 standard; protein; 159 AA.
 AC ADD05353;
 XX
 XX 01-JAN-2004 (first entry)
 XX
 DE Human interleukin-B50 (IL-B50) polypeptide #2.
 XX
 KW Human; interleukin-B50; IL-B50; immune disorder; T cell immunodeficiency;
 KW chronic inflammation; tissue rejection; cardiovascular condition;
 KW rheumatoid arthritis; chronic inflammation or tissue rejection, or
 KW immunosuppressive;
 KW immunostimulant; cardiant; neuroprotective.
 XX
 OS Homo sapiens.
 XX
 PN US2003099947-A1.
 PD 29-MAY-2003.
 XX
 PF 25-SEP-2001; 2001US-00963347.
 XX
 PR 21-SEP-1998; 98US-0101318P.
 PR 27-APR-1999; 99US-0131298P.
 PR 20-SEP-1999; 99US-00399492.
 XX
 PA (BAZAN/) BAZAN J F.
 PA (MALE/) DE WAAL MALEFYT R.
 PA (LIU/) LIU Y.
 PA (SOUN/) SOUNELIS V.
 XX
 PI BAZAN JF, De Waal Malefyt R, Liu Y, Soumelis V;
 PI WPI; 2003-777307/73.
 DR N-PSDB; ADD05352.
 XX
 PT Novel isolated or recombinant polynucleotide encoding antigenic human
 PT interleukin-B50 sequence which is useful for treating T cell
 PT immunodeficiencies, chronic inflammation or tissue rejection, or
 PT cardiovascular conditions.
 XX
 PS Claim 16; SEQ ID NO 4, 54pp; English.
 XX
 CC The invention relates to the human interleukin-B50 (IL-B50) polypeptide
 CC and the polynucleotide encoding it. The polypeptide is useful for making
 CC an antigenic polypeptide. The antigenic polypeptide is useful for binding
 CC an antigen in a biological sample, where it forms a binding compound-
 CC antigen complex. The polypeptide is also useful in forensic sciences to
 CC distinguish rodent from human, or as a marker for distinguishing between
 CC different cells exhibiting differential expression or modification
 CC patterns. The sequences are useful for treating abnormal medical
 CC conditions such as immune disorders e.g. T cell immunodeficiencies,
 CC chronic inflammation or tissue rejection, or cardiovascular or
 CC neurophysiological conditions. This sequence represents a human IL-B50

CC polypeptide of the invention.
 XX
 SQ Sequence 159 AA;
 XX

Query Match 91.9%; Score 707; DB 7; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 6 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 65
 DB 1 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 60

QY 66 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 125
 DB 61 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 120

QY 126 TQAMKRRRRKRVTTNKCLEQVSOL 149
 DB 121 TQAMKRRRRKRVTTNKCLEQVSOL 144

RESULT 10
 ADF29182
 ID ADF29182 standard; protein; 159 AA.
 AC ADF29182;
 XX
 XX 12-FEB-2004 (first entry)
 XX
 DE Human JY1, SEQ ID 2.
 XX
 KW Human; lymphokine; JY1 protein; TSP; tumour; inflammation;
 KW immunological system disease; cytostatic; anti-inflammatory.
 XX
 OS Homo sapiens.
 XX
 PN CN1385441-A.
 PD 18-DEC-2002.
 XX
 PF 16-MAY-2001; 2001CN-00112889.
 XX
 PR 16-MAY-2001; 2001CN-00112889.
 XX
 PA (LUOY/) LUO Y.
 PI Luo Y, Wu J;
 XX
 DR WPI; 2003-279588/28.
 DR N-PSDB; ADF29181.
 XX
 PT Novel human lymphokine, its coding sequence and use for treating tumor.
 PT Claim 1; Page 20; 30pp; Chinese.
 XX
 PS The present invention provides a novel human lymphokine-JY1 protein
 CC (ADF29182) and its coding sequence (ADF29181). JY1 protein is a
 CC homogeneous molecule of TSP. The invention also discloses the
 CC application of the JY1 protein coding sequence, and also discloses the
 CC method for curing several diseases (such as tumour, inflammation and
 CC immunological system diseases) by using the JY1 protein receptor.
 XX
 SQ Sequence 159 AA;
 XX

Query Match 91.9%; Score 707; DB 7; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 6 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 65
 DB 1 MFPPALLVYLSVSFRKIFILQVGLVLTDFNTPNRCDEKIKAAVLTSTISKDLITVMSGTGS 60

QY 66 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 125
 DB 61 TEFNNVTSCSNRPHCLTEIOSLTFFNPNRRVRSIAKEMFAMKTKAALAIWCPGYSETOINA 120

Db 61 TEFNNVSCSNRPCLTEIOSLTFFNPTAGCASLAKEMFAKTKAALAIWCPGSETQINA 120
 Oy 126 TOAMKRRKRRKVTNNKCLEQVSOL 149
 Db 121 TOAMKRRKRRKVTNNKCLEQVSOL 144

RESULT 11
 ADG43811
 ID ADG43811 standard; protein; 159 AA.
 AC ADG43811;
 DT 26-FEB-2004 (first entry)
 DE Human thymic stromal lymphopoietin (TSLP/IL-50) SEQ ID NO:1.
 DE
 XX antigen presenting cell; APC; T-cell; thymic stromal lymphopoietin; TSLP;
 KM interleukin-50; IL-50; receptor; antiinflammatory; antiproliferative;
 KM antiarthritic; antiasthmatic; respiratory-gen.; immunostimulant;
 KM gene therapy; dendritic cell activity; immune disorder;
 KM inflammatory disorder; psoriasis; psoriatic arthritis; asthma;
 KM chronic obstructive pulmonary disorder; COPD; immunodeficiency.
 KM
 XX Homo sapiens.
 OS
 XX MO2003065985-A2.
 PN
 XX 14-AUG-2003.
 PD
 XX 30-JAN-2003; 2003WO-US002758.
 PE
 XX 01-FEB-2002; 2002US-0353509P.
 PR
 XX (SCHE) SCHERING CORP.
 PA
 XX De Waal Malefyt R, Liu Y, Nagalakshmi ML, Soumelis V, Watanabe N;
 PI Yuan W;
 PI
 XX WPI; 2003-731469/69.
 DR
 XX
 PT Modulating antigen presenting cell (APC) priming of a T-cell, useful for
 PT e.g. asthma, comprises contacting the APC with an agonist or antagonist
 PT of thymic stromal lymphopoietin (TSLP)/interleukin (IL)-50 or TSLP/IL-50
 PT receptor.
 PT
 XX
 PS Claim 1; Page 39; 22pp; English.
 PS
 XX The invention relates to a novel method of modulating antigen presenting
 CC cell (APC) priming of a T-cell by contacting the APC with an agonist or
 CC antagonist of thymic stromal lymphopoietin (TSLP)/interleukin (IL)-50 or
 CC TSLP/IL-50 receptor (TSLP/IL-50R). The method of the invention has
 CC antiinflammatory, antiproliferative, antiarthritic, antiasthmatic,
 CC respiratory-gen., and immunostimulant activity. The method may have a use
 CC in gene therapy. The method is useful in modulating dendritic cell
 CC activity using agonists or antagonists of a mammalian cytokine, or in
 CC treating immune or inflammatory disorders such as psoriasis, psoriatic
 CC arthritis, asthma, chronic obstructive pulmonary disorder (COPD) or an
 CC immunodeficiency resulting from cytoablation or viral infection. The
 CC present sequence represents the human thymic stromal lymphopoietin of the
 CC invention.
 CC
 XX Sequence 159 AA;

Query Match 91.9%; Score 707; DB 7; Length 159;
 Best Local Similarity 96.5%; Pred. No. 3.3e-73;
 Matches 139; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Oy 6 MPPFALLVYLSVSPFKRIFILQVLGVLTDFNCPDEFKIKAAVLSTISDILTYMSGTGS 65
 Db 1 MPPFALLVYLSVSPFKRIFILQVLGVLTDFNCPDEFKIKAAVLSTISDILTYMSGTGS 60

Oy 66 TEFNNVSCSNRPCLTEIOSLTFFNPTAGCASLAKEMFAKTKAALAIWCPGSETQINA 125
 Db 61 TEFNNVSCSNRPCLTEIOSLTFFNPTAGCASLAKEMFAKTKAALAIWCPGSETQINA 120
 Oy 126 TOAMKRRKRRKVTNNKCLEQVSOL 149
 Db 121 TOAMKRRKRRKVTNNKCLEQVSOL 144

RESULT 12
 ADO50320
 ID ADO50320 standard; protein; 159 AA.
 AC ADO50320;
 DT 29-JUL-2004 (first entry)
 DE Human IL-B50 protein #2.
 DE
 XX Cytokine; interleukin-B50; IL-B50; differentiation; haematopoietic cell;
 KM immune disorder; T cell immune deficiency; chronic inflammation;
 KM tissue rejection; cardiovascular; neurophysiological; antigen; immunogen;
 KM human.
 KM
 XX Homo sapiens.
 OS
 XX

XX Key Location/Qualifiers
 FH Peptide 1..28
 FT /label=Signal_peptide
 FT Protein 29..159
 FT /label=Mature_IL-B50
 FT Region 38..54
 FT /label=Helix_A
 FT Region 66..69
 FT /label=Strand_1
 FT Region 74..85
 FT /label=Helix_B
 FT Region 96..110
 FT /label=Helix_C
 FT Modified-site 119
 FT /note="N-glycosylated"
 FT Region 132..134
 FT /label=Strand_2
 FT Region 135..155
 FT /label=Helix_D
 PN
 XX US2004091970-A1.
 PN
 XX 13-MAY-2004.
 PD
 XX 20-JUN-2003; 2003US-00601105.
 PP
 XX 21-SEP-1998; 98US-0101318P.
 PR 27-APR-1999; 99US-0131298P.
 PR 20-SEP-1999; 99US-00399492.
 PR 25-SEP-2001; 2001US-00963347.
 PA
 XX (SCHE) SCHERING CORP.
 PI
 XX Bazan JF, De Waal Malefyt R, Liu Y, Soumelis V;
 PI N-PSDB; ADO50319.
 PI
 XX WPI; 2004-374953/35.
 DR
 XX

PT Novel isolated or recombinant polynucleotide such as cytokine e.g., IL-B50 useful for producing an antigenic polypeptide, for treating T cell immune deficiencies, chronic inflammation, tissue rejection or cardiovascular conditions.
 PT
 XX

PS Claim 16; SEQ ID NO 4; 55pp; English.

CC The invention relates to polynucleotide encoding cytokine interleukin-B50 (IL-B50). The polynucleotide and polypeptide of the invention are useful

PT polynucleotide, useful for stimulating lymphocyte proliferation of
PT lymphoproliferation, particularly as a vaccine for treating e.g. AIDS or
PT autoimmune diseases.

Claim 11; Page 50; 52pp; English.

The invention relates to modified human thymic stromal lymphopoietin
(TSLP) protein and polynucleotide sequences. TSLP protein is useful for
stimulating lymphocyte proliferation of lymphoproliferation, or inducing STARS.
TSLP DNA is useful for producing a furin-resistant polypeptide having at
least one functional human TSLP activity. The invention is useful in the
manufacture of a medicament for stimulating lymphocyte proliferation, for
promoting lymphoproliferation, or for inducing phosphorylation of STARS. It is
also useful as a vaccine for treating AIDS, autoimmune diseases (e.g.
transplant rejection), or bacterial or viral infections. The present
sequence is human TSLP mutant protein

Sequence 159 AA;

Query Match 89.6%; Score 689; DB 6; Length 159;
Best Local Similarity 94.4%; Pred. No. 4e-71;
Matches 136; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

QY 6 MPPFALLVLSVSFRKIFILQVGLVLTVDFTNCDPEKIKAAVLSITSDITVMSGTS 65
DB 1 MPPFALLVLSVSFRKIFILQVGLVLTVDFTNCDPEKIKAAVLSITSDITVMSGTS 60

QY 66 TEFNNTVSCSNRPHCTETIQSLTFPNRRVRSIAKEMFAMTKAALAIWCPGSETOINA 125
DB 61 TEFNNTVSCSNRPHCTETIQSLTFPNRRVRSIAKEMFAMTKAALAIWCPGSETOINA 120

QY 126 TQAMKKRRKRRKTTNKCLEQVSOL 149
DB 121 TQAMKKRRKRRKTTNKCLEQVSOL 144

RESULT 15

AAB37158
ID AAB37158 standard; protein; 159 AA.

AC AAB37158;

DT 07-AUG-2003 (first entry)

DE Human thymic stromal lymphopoietin (TSLP) mutant #1.

KW Thymic stromal lymphopoietin; TSLP; lymphoproliferation; STARS; antibacterial;

KW furin-resistant protein; lymphocyte; vaccine; AIDS; autoimmune disease;

KW transplant rejection; infection; immunosuppressive; immunostimulant;

KW virucide; human; mutant; mutagen.

OS Homo sapiens.

OS Synthetic.

OS Key

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

FT MISC-difference

PD 24-APR-2003.
XX 23-JUL-2002; 2002MO-US023475.
XX 23-JUL-2001; 2001US-0307345P.

PA (IMMUNEX CORP.
PI Lyman SD, Van Ness KP, Paxton RJ,
XX WPI; 2003-393470/37.
XX N-PSDB; AAD56175.

PT New modified human thymic stromal lymphopoietin (TSLP) protein and
PT polynucleotide, useful for stimulating lymphocyte proliferation of
PT lymphoproliferation, particularly as a vaccine for treating e.g. AIDS or
PT autoimmune diseases.

Claim 11; Page 44; 52pp; English.

The invention relates to modified human thymic stromal lymphopoietin
(TSLP) protein and polynucleotide sequences. TSLP protein is useful for
stimulating lymphocyte proliferation of lymphoproliferation, or inducing STARS.
TSLP DNA is useful for producing a furin-resistant polypeptide having at
least one functional human TSLP activity. The invention is useful in the
manufacture of a medicament for stimulating lymphocyte proliferation, for
promoting lymphoproliferation, or for inducing phosphorylation of STARS. It is
also useful as a vaccine for treating AIDS, autoimmune diseases (e.g.
transplant rejection), or bacterial or viral infections. The present
sequence is human TSLP mutant protein

Sequence 159 AA;

Query Match 88.0%; Score 677; DB 6; Length 159;
Best Local Similarity 93.1%; Pred. No. 9.8e-70;
Matches 134; Conservative 0; Mismatches 10; Indels 0; Gaps 0;

QY 6 MPPFALLVLSVSFRKIFILQVGLVLTVDFTNCDPEKIKAAVLSITSDITVMSGTS 65
DB 1 MPPFALLVLSVSFRKIFILQVGLVLTVDFTNCDPEKIKAAVLSITSDITVMSGTS 60

QY 66 TEFNNTVSCSNRPHCTETIQSLTFPNRRVRSIAKEMFAMTKAALAIWCPGSETOINA 125
DB 61 TEFNNTVSCSNRPHCTETIQSLTFPNRRVRSIAKEMFAMTKAALAIWCPGSETOINA 120

QY 126 TQAMKKRRKRRKTTNKCLEQVSOL 149
DB 121 TQAMKKRRKRRKTTNKCLEQVSOL 144

Search completed: October 17, 2005, 12:21:02
Job time : 118.62 secs

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